RubberWorld

The technical service magazine for the rubber industry Volume 202, No. 3 June 1990

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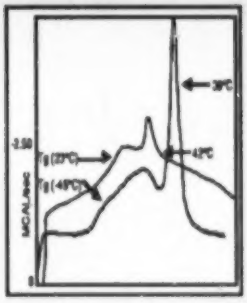

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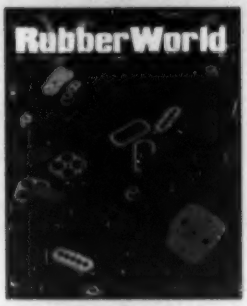

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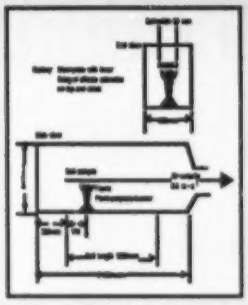

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Cover photo courtesy of Wacker Silicones Corp.

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The Audit Bureau

Editorial

"The future of American industry depends on successfully developing new technology and how well we educate and develop the people we need to keep us technologically competitive." There's no need to identify the author of this quote because it's generic. It or something similar has probably been uttered thousands of times by company chairman, CEOs and a plethora of speech makers spanning most of industry. The quote accompanies the warning that the competition internationally is doing this and then there is usually a dig at the American educational system. The speaker then exhorts the audience to get involved.

The theme of quality also has its stock speech that many executives use. It seems that speech writers have a general formula for this type of speech as well. And like the quality issue, the educational issue is falling under the category of lip service. Many executives can talk a good game, but when it comes to implementation the bottom line appears to get in the way. The rubber industry is not immune to this. The attendance at the recent spring Rubber Division meeting of a little over 80% represented only around 20% of the membership. Excuses have been offered but none seem to carry much weight. It appears the venue presented an opportunity to enhance the bottom line and not the technical advancement of the workforce.

I think it would be hard to talk about the education of the workforce while denying opportunities for technical enhancement. The rubber industry offers some quality instruction through the Division, the rubber groups and universities like the University of Akron's Polymer Science Institute. One of the newer and best developed courses is the one sponsored by the New York Rubber Group on "Engineering design with elastomers" which they hold at Stevens Institute of Technology. The developers of this program recognized the potential for elastomers as high-integrity engineering materials. However, there is a low level of appreciation of the unique engineering properties of elastomers and there is difficulty in accessing suitable data for design engineers. This five-day course addresses both shortcomings, and according to previous attendees, they do it extremely well.

But, like the Rubber Division, people aren't beating down the doors to take the course, even though it addresses what is going to be the future of the rubber industry. The speech makers talk a good game now, but when the game passes by all that will be left is the talk.

Don R. Smith
Editor

RubberWorld

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Business Briefs

in Hamilton, OH. The facility contains 75,000 sq. ft. of warehouse space and covered dock, 6,200 sq. ft. of office space and a bulk storage capacity of 700,000 gallons.

Phillips Petroleum will construct a new plant as part of the final step in restoring its annual U.S. polyethylene production capacity to 1.8 billion pounds, the capacity it had in place or under construction prior to the accident at its Houston chemical complex, Oct. 23. Construction is expected to begin in the first quarter of 1991 with start-up in mid 1992. The plant will have a rated capacity of 600 million pounds a year, and will utilize Phillips' loop reactor technology.

Polycoat Systems, Hudson Falls, NY, expanded its territory as a distributor of **Dow Corning's** silicone roofing systems to include the entire East Coast.

DSM Kunstharze GmbH, Meppen, Federal Republic of Germany, a subsidiary of **DSM Resins**, has expanded its resin production to 12,000 metric tons per year with the installation of a computer-controlled batch production line for advanced synthetic resins, such as polyurethane and saturated polyester resins, at an investment of DM 25m.

UCB Chemicals will expand its Ghent, Belgium site of the Film Sector, with the addition of new equipment for high volume printing and laminating for the conversion of packaging films, a third co-extrusion film unit, new developments in special films and a vacuum metalizing unit.

Swedish-based roller bearing manufacturer, **SKF**, completed the previously announced acquisition of **CR Industries**, a producer of fluid sealing devices.

CR Industries opened a 64,000 square foot warehouse and distribution center in Lenexa, KS. From the facility, the company can provide next day service to customers in adjcent states.

CEM Corporation, a manufacturer of microwave equip-

1990-1994 IISRP forecast - new rubber consumption by region* (thousand metric tons)

Natural rubber	1988	1989	1990	1994
North America	948	981	982	1,030
Western Europe, Africa, Middle East	1,130	1,160	1,185	1,275
Asia and Oceania	1,750	1,740	1,812	2,075
Latin America	212	233	240	278
Total	4,040	4,114	4,219	4,658

Source: IISRP forecast * excluding centrally planned economy countries

Meet the new kid on the block

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Dover Chemical now is producing a solid-phosphite antioxidant. High-quality Doverphos S-680 phosphite provides outstanding color stability as a process and age stabilizer. Available in dustless flakes, it assures low odor and volatility. Doverphos S-680 phosphite complies with many FDA regulations. It is ideal for polyolefins, polystyrene, ABS rubber, PVC, PVC copolymers, polyesters and polycarbonates.

For information, contact Dover Chemical Corp., Dept. S-680, P.O. Box 40, Dover, Ohio 44622, (216) 343-7711.

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Business Briefs

ment for laboratory testing and analysis, opened two subsidiaries. **CEM Microwave Technology, Ltd.**, Buckingham, England, and **CEM GmbH**, West Germany, will provide full sales, service and application support for CEM.

Belgium-basedsteel wire and steel cord manufacturer, **Bekaert,** will acquire 40% of the shares of **Bremen SA** in Spain, a producer of fiber reinforced composites. Bremen has offices and production facilities in Munguia, Vizcaya, Spain.

Polyfol Klepsch, the first European producer of biaxially-oriented polystyrene suitable for thermoformed plastic packaging, is also the first European company to receive a slitter/rewinder capable of handling extruded plastics. The Model 805 slitter/rewinder, manufactured and installed by **Dusenbery Europe Limited**, the European division of the John Dusenbery Company, is in operation at Polyfol Klepsch's plant in Vienna. The plant was built and equipped to handle an initial capacity of 8,000 tons of BOPS per year in thermoformable gauges between 70 and 700 microns.

Elsevier Science Publishing, New York, NY, acquired a monthly technical report from the **Massachusetts Institute of Technology Press**, entitled Materials and Processing Report. Terms of the purchase were not disclosed.

Contracts, licenses

Continental AG and **VEB Reifenkombinat Fuerstenwalde**, the East German state-owned tire company which produces the Pneumant brand tire, have entered into an agreement for a future partnership. The East German company has five manufacturing plants and a retreading plant, which collectively employ 10,500 people. Pneumant's production facilities in East Germany will be modernized, and its top and middle management employees will be trained and familiarized with the conditions of a free market economy, Continental said in a press release.

Mobay appointed **Albis** of Houston, TX as regional distributor of its line of engineering thermoplastic resins and blends, throughout the southeast United States.

Rhein Chemie was named a distributor for the full line of rubber chemicals marketed by **Mobay**. Rhein Chemie, Trenton, NJ, will represent Mobay products throughout the U.S., excluding the 11 western states.

The previously announced 50/50 joint venture between **Solvay & Cie, S.A.** and **Dexter** has been completed. The venture will develop, manufacture and sell specialty engineered polypropylene-based compounds internationally.

Sumitomo Chemical, Daicel Chemical Industries and **Sumitomo Metal Mining** will form a joint venture to cooperate extensively in the optical disk business. **Optical**

1990-1994 IISRP forecast - new rubber consumption by region* (thousand metric tons)

Synthetic rubber	1988	1989	1990	1994
North America	2,581	2,590	2,601	2,820
Western Europe, Africa, Middle East	2,121	1,191	2,238	2,413
Asia and Oceania	1,675	1,723	1,763	2,019
Latin America	454	487	505	568
Total	6,831	6,991	7,107	7,820

Source: IISRP forecast * excluding centrally planned economy countries

1990-1994 IISRP forecast - new rubber consumption by region* (thousand metric tons)

Total rubber	1988	1989	1990	1994
North America	3,529	3,571	3,583	3,850
Western Europe, Africa, Middle East	3,251	3,351	3,423	3,688
Asia and Oceania	3,425	3,463	3,575	4,094
Latin America	616	720	745	847
Total	10,871	11,105	11,326	12,478

Source: IISRP Forecast * excluding centrally planned economy countries

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Business Briefs

$11.7 billion and net earnings after tax totaling $66.7 million.

British Petroleum reported $546 million in 1989 fourth quarter replacement cost net income.

Buhler Brothers Ltd. and **Buhler-Miag** will both be known from here on as just **Buhler**. The company also redesigned its logo.

Chem Systems Group opened a **Chem Systems East Asia Ltd.** branch office in Bangkok, Thailand.

Continental reported sales of DM 8.4 billion for 1989, and said its consolidated profits were slightly above 1988's income of DM 195 million.

Cooper Tire reported 1989 net income of $58.2 million and sales of $866.8 million. Net sales for the first quarter of 1990 were $208.6 million and earnings were $13.7 million.

DSM realized a net profit of *f* 1.38 billion in 1989. Sales were *f* 10.8 billion.

Du Pont had a 1989 net income of $2.48 billion on sales of $35.53 billion.

Ethyl recorded net income for 1989 of $231.3 million and net sales from continuing operations of $2.43 billion.

Firestone is extending its previously-announced recall of tubeless over-the-road truck tires by an additional 89,500 units to include all tubeless tires produced between mid-1987 and late 1989 at Bilbao, Spain, and imported to the United States.

General Tire will adjust production schedules at two of its plants because of a need to adjust inventories caused by a soft market. Approximately 300 hourly and salaried employees on the weekend crew at the company's Mayfield, KY facility will be placed on indefinite layoff. In addition, a one week production shutdown will be put in place at the Charlotte, NC tire plant.

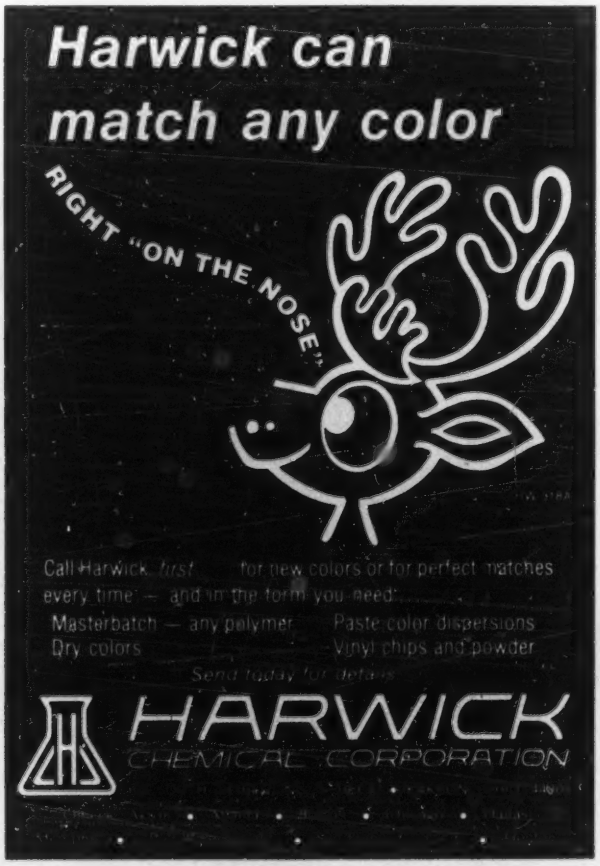
BFGoodrich Aerospace Division combined its Marine Products & Services and Dynamic Polymer Products units and created a new business which is yet to be named. Headquarters will be at existing MP&S facilities in Jacksonville, FL. The new unit will continue to develop products for the transportation industry.

Goodyear will reorganize its North American tire operations which will create two business units - a consumer tire group and a commercial tire group.

Goodyear's 1989 net income totaled $206.8 million and sales for the year reached $10.87 billion. The company's net income in the first quarter of 1990 was $20.9 million and sales were $2.7 billion.

M.A. Hanna had net income in the first quarter of $3.6 million and net sales of $267.9 million.

Lexington Precision reported a net loss of $494,000 and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1990-1994 IISRP forecast - worldwide new rubber consumption by area (thousand metric tons)

	1988	1989	1990	1994
Non-CPEC				
Synthetic rubber	6,831	6,991	7,113	7,821
Natural rubber	4,040	4,114	4,219	4,658
Total new rubber	10,871	11,105	11,332	12,479
% synthetic	62.8	63.0	62.8	62.7
Eastern Europe				
Synthetic rubber	3,020	3,060	3,120	3,400
Natural rubber	342	368	383	413
Total new rubber	3,362	3,428	3,503	3,813
% synthetic	89.8	89.3	89.1	89.6
China/Asian CPEC				
Synthetic rubber	325	350	380	490
Natural rubber	550	590	630	805
Total new rubber	875	940	1,010	1,295
% synthetic	37.1	37.2	37.6	37.8
Total CPEC				
Synthetic rubber	3,345	3,410	3,500	3,890
Natural rubber	892	958	1,013	1,218
Total new rubber	4,237	4,368	4,513	5,108
% synthetic	78.9	78	77.6	76.2
Total World				
Synthetic rubber	10,176	10,401	10,613	11,711
Natural rubber	4,932	5,072	5,232	5,876
Total new rubber	15,108	15,473	15,845	17,587
% synthetic	67.4	67.2	67	66.6

Source: IISRP forecast

Business Briefs

net sales of $40.5 million for the seven months ended December 31, 1989. The company changed its fiscal year-end from May 31 to December 31.

Manville reported net sales in 1989 of $2.2 billion and a net income loss of $196,825.

Measurex had a net income of $40,682 on revenues of $285,347 for 1989.

The **National Fluid Power Association** granted final approval of the standard T2.9.6 R1-1990 - hydraulic fluid power - calibration method for liquid automatic particle counters using latex spheres. The new procedure utilizes NIST-traceable monodispersed latex spheres in oil for primary calibration.

NOVA reported unaudited net income for the fourth quarter of 1989 of $186 million on revenue of $4.8 billion.

The **Ohio Academy of Science** has named nearly 100 Ohio scientists and engineers, recruited by Ohio's **Edison Technology Centers** and other science and technology centers, to participate as visiting scholars in the areas of biotechnology, polymers, manufacturing sciences, materials science, welding engineering and information technologies. The scholars will visit Ohio's public and private schools to assist teachers, students and school administrators to improve science and technology education.

A reorganization at **Rockwell International** will unite the operations of its **Butler Polymet** unit with its other plastics businesses to share sales, marketing, engineering and manufacturing technologies and capabilities.

The **Rubber Research Institute of Malaysia** is recommending borax as an alternative to Lindane as a treatment for SMR pallet timber. Borax was found to be more effective for wood preservation than Lindane and less toxic. The use of timber preservative prevents the shipment of wood borers and their eggs around the world.

Yarbrough Elastomer Products, Houston, TX changed its name to **DuraQuest**, a subsidiary of **Duramax**. The company manufactures elastomer products.

Markets, news

The **International Institute of Synthetic Rubber Producers** predicts worldwide consumption of synthetic rubber to surpass 11.7 million metric tons by 1992, with both synthetic and natural rubber increasing at an average yearly rate of 2.1% during a five-year period. Synthetic rubber consumption in the non-centrally planned economies is projected to gain at an average annual rate of 1.9% between 1990 and 1994. During the forecast period, the IISRP predicts Asia/Oceania to see an annual SR growth increase of 2.7%, followed by Latin America's annual SR consumption increase of 2.4% annually. It projects North America's annual SR consumption to grow at a rate of 1.6% while western Europe, Africa and the Middle East region will post gains of 1.5% yearly. The IISRP believes the centrally-planned economies of eastern Europe and Asia will consume 3.5 million metric tons of SR in 1990, rising to approximately 3.9 mmt in 1994. Styrene butadiene rubber consumption, which comprised the largest share of the SR market at 34.8% in 1989, should rise by 191,000 mt between 1990 and 1994. Polybutadiene consumption is expected to maintain its 1989 level at 16% of market share for the next five years.

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